

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF VIRGINIA  
ROANOKE DIVISION**

**JEFFREY S. HODGES,  
TOMMY LEE BONDS, and  
JOHN PAUL SPANGLER,**

**Plaintiffs,**

**V.**

**Civil Action No. 7:12cv00362**

**FEDERAL-MOGUL CORPORATION,**  
**et al.,**

### Defendants.

**FEDERAL-MOGUL’S MEMORANDUM IN SUPPORT  
OF ITS MOTION FOR SUMMARY JUDGMENT**

COMES NOW the Defendant Federal-Mogul Corporation (“Federal-Mogul”), by counsel,  
and submits this Memorandum in Support of its Motion for Summary Judgment.

## STATEMENT OF THE CASE

This is a products liability lawsuit arising from a December 31, 2010 explosion that occurred at the Federal-Mogul factory in Blacksburg, Virginia. To maintain the safety of its employees, Federal-Mogul hired a hazardous materials removal company called LCM Corporation to inspect Federal-Mogul's ducts and remove any combustible dust buildup that might have accumulated. The Plaintiffs, Jeffrey Hodges, Tommy Bonds and John Paul Spangler, were the LCM employees sent to the Federal-Mogul factory to remove a buildup of combustible aluminum dust that they had found in one duct during the previous day's inspection. The explosion occurred when the Plaintiffs attempted to vacuum this highly combustible aluminum dust out of an overhead industrial duct while using vacuuming equipment that was not electronically grounded. The resulting static spark ignited the dust and burned the Plaintiffs.

Plaintiffs filed this action against Federal-Mogul on August 6, 2012, and amended their Complaint on December 27, 2012. In their Amended Complaint, Plaintiffs alleged claims for the first time against the other Defendants: Dustex Corporation, Carrington Engineering Sales Co.,<sup>1</sup> and Kirk & Blum Manufacturing Company.<sup>2</sup> Extensive discovery has occurred and the deadline for fact discovery has passed. A five day jury trial is scheduled for February 24–28, 2014.

### **SUMMARY OF ARGUMENT**

There are no genuine issues of material fact, and Defendant Federal-Mogul Corporation is entitled to judgment as a matter of law. The overwhelming weight of evidence suggests the explosion occurred in the overhead duct when a static spark from the Plaintiffs' ungrounded equipment ignited the buildup of aluminum dust that the vacuum had stirred into a cloud within the duct. The deflagration spread two ways: (1) out of the open duct and onto the Plaintiffs, and (2) down the opposite direction along the duct, past a one-way prophylactic valve and into the external dust collector or "baghouse." There, the ignited material caused an overpressurization that exploded the baghouse.

Plaintiffs' employer, LCM, held itself out to be a hazardous waste removal expert, and that its personnel was certified in hazardous waste operations. Plaintiffs were all certified in hazardous waste removal operations under the Code of Federal Regulations. Moreover, LCM knew from a previous inspection (1) what the material in the ducts would be, and (2) that it was highly combustible. Nevertheless, LCM and its employees attempted to vacuum out highly combustible material using ungrounded vacuuming equipment in violation of National Fire Protection Association ("NFPA") Standards 77 (§§ 9.6 and 9.7) and 484 (§ 4.4.3.2). The Plaintiffs are likely barred by Virginia workers' compensation law from suing their employer. They have sued these

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<sup>1</sup> Plaintiffs named various associated entities; they are referred to (for ease of reference) in the pleadings, court documents and in this memorandum generally as "Carrington Engineering."

<sup>2</sup> As with Carrington Engineering, Plaintiffs named several entities, all of whom are referred to herein as "Kirk & Blum" or "K&B."

Defendants instead. Nevertheless, this accident was caused by LCM's and the Plaintiffs' negligence—not by any act or omission of the Defendants.

The scintilla of evidence upon which Plaintiffs' entire case against Federal-Mogul rests is unreliable, instantaneous and physically impossible testimony from Plaintiff Jeffrey Hodges. Based on his unreliable testimony, Plaintiffs claim that the explosion began in the external baghouse—not in the ducts, where the Plaintiffs were actively violating workplace safety standards specifically designed to prevent combustible dust explosions. Plaintiffs fail to establish proximate cause because Hodges' testimony (even if assumed to be true), is irrelevant to the question of where and why the explosion began.

In conjunction with this Motion, Federal-Mogul will also file a motion to exclude the testimony of Plaintiffs' two causation expert witnesses, because those experts have utterly failed to utilize reproducible methodologies, and because they have not applied the scientific method to their investigations. However, regardless of the outcome of Federal-Mogul's *Daubert* motion, the Court should independently grant summary judgment in favor of Federal-Mogul because the Plaintiffs cannot establish proximate cause.

### STATEMENT OF UNDISPUTED FACTS

#### **The Italian Explosion and the Federal-Mogul Initiative**

In July of 2009, an explosion occurred in the Cuorgné, Italy factory of Federal-Mogul Corporation, a global automotive parts producer. **Exhibit 1**, Chilworth Industries Presentation, DEFFM00429; **Exhibit 2**, Brian Thrush Affidavit, ¶ 4. The cause of the explosion was believed to be a buildup of aluminum dust, a highly combustible material. Virtually all dust is combustible, but aluminum dust is particularly volatile.

Thankfully, no one was killed in the 2009 Italian explosion, but it was a significant explosion. Upon learning that the explosion was related to the buildup of aluminum dust (a byproduct of certain products made by Federal-Mogul), Federal-Mogul implemented a company-

wide dust mitigation program to prevent any further accidents of that nature. **Exhibit 3**, Federal-Mogul EHS Combustible Dust Management Standard (DEFFM553-556). The Federal-Mogul global effort coincided with recent studies coming out from the U.S. Occupational Safety and Health Act enforcement group and elsewhere that combustible dusts were a critically serious issue (OSHA directive CPL 03-00-008, **Exhibit 4**; Chemical Safety and Hazard Investigation Board (CSB) in its Combustible Dust Hazard Study, 2006-H-1, November 2006, **Exhibit 5**). Federal-Mogul required that all factories that produced aluminum byproduct create and implement their own comprehensive combustible dust management procedure, in line with corporate standards. (**Ex. 3.**)

Only some of Federal-Mogul's factories made products with aluminum byproduct, including the Blacksburg, Virginia factory. In or around 2002, the Blacksburg factory had purchased a Bonding Line, which is a compilation of industrial equipment that, when assembled, allowed Federal-Mogul to combine aluminum (or "bond" it) with steel to form circular automotive bearings.

David Garard, an engineer employed by Federal-Mogul, had been the project leader for the design and installation of the aluminum bonding line, known internally as the "East Bonding Line." (Def. Federal-Mogul 30(b)(6) Dep. (David Garard), November 22, 2013, 28–29 (**Exhibit 6**); Def. Federal-Mogul 30(b)(6) Dep. Ex. 2 (**Exhibit 7**)). There was a need to install a dust collection system with the East Bonding Line that would remove potentially dangerous aluminum dust byproduct from the factory in a safe manner. In order to accomplish this goal, Garard worked with a manufacturer's representative known as Carrington Industries in the design and installation. (**Exhibit 8**, Def. Federal-Mogul 30(b)(6) Dep., 18–25, November 13, 2012). Garard provided Carrington with specifications and other information, and Carrington acted as liaison between Federal-Mogul and Dustex (the designer of the dust collector or "baghouse" at issue here) and Kirk & Blum (the manufacturer of the back-draft damper also at issue here).<sup>3</sup> Sometime around 2003,

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<sup>3</sup> The back-draft damper has been referred to in this case with a variety of names, including: back-draft damper, back-blast damper, flame arrestor, prophylactic valve, damper. All these names refer to the product made by Kirk & Blum.

the East Bonding Line and the dust collection system had gone into operation. (Federal-Mogul 30(b)(6) Dep., 13–14; Nov. 13, 2012).

The dust collection system installed as part of the East Bonding Line was meant to remove the aluminum dust byproduct from the plant by suction through overhead ducts grounded to the plant's frame and located at the factory's ceiling. The suction system was powered by a fan that would suck the dust particles out of the factory through the duct and past the back-draft damper. The damper was a one-way valve that hinged at the top, just above the cylindrical duct, and covered the duct's mouth. (**Exhibit 9**, Martin Schloss Deposition Ex. 15).

Once the dust was conveyed through the ducts, past the damper and into the baghouse, it would drop into a barrel by means of filters. The barrel was meant to be maintained periodically.

To prevent further accidents like the Cuorgné explosion, Federal-Mogul required each aluminum byproduct producing factory to create its own aluminum dust mitigation work instruction. The Blacksburg factory responded accordingly. First, they brought in Chilworth Industries, the same dust mitigation consultant experts that had helped create the company-wide program, to inspect and provide recommendations unique to the Blacksburg plant. (**Ex. 6**, 120–121.) The Chilworth review at Blacksburg led to an April 27, 2010 report suggesting inspection and cleaning of aluminum off of all surfaces of plant machinery (among other things). (**Exhibit 10**, Federal-Mogul 30(b)(6) Dep. Ex. 43, Nov. 22, 2013). In response, the Blacksburg plant hired a hazardous materials removal company known as Hughes Environmental, Inc., which conducted a \$36,000 cleaning of all surface accumulations without incident in July, 2010. (**Exhibit 11**, Federal-Mogul 30(b)(6) Dep. Ex. 48, Nov. 22, 2013.) Another recommendation in the Chilworth report was to have an outside company inspect all overhead ducts that might carry byproduct aluminum dust to baghouses. (**Ex. 10; Ex. 12**, Peter Thompson Affidavit ¶ 5).

**LCM Corporation – Hazardous Materials Removal Expert**

Once all surfaces had been cleaned, the next step for the Blacksburg factory was to make sure that the ducts that ran from the production lines to the external baghouses were free of dust buildup. Because any dust that would have accumulated could present a serious explosion risk, Federal-Mogul chose to use a professional hazardous materials removal company rather than simply use its own maintenance crew. (**Ex. 2**, ¶ 9.) The Federal-Mogul Material Prep Value Stream Manager at the Blacksburg factory at that time was Peter Thompson. To help locate a suitable company for this task, Peter Thompson contacted other local industrial plants that had had similar work performed on their ducts. (**Ex. 12**, ¶ 6; **Exhibit 13**, DEFFM 00181–187.) He asked whether they had any recommendations for a hazardous materials remediation company that could work with dust removal.

The recommendation came back: LCM Corporation (“LCM”) (**Ex. 13**.) LCM’s website advertises “Progressive Industrial Waste Management” and “Professional Environmental Services.” (**Exhibit 14**, Ed Thompson Dep. Ex. 51.) LCM’s representative work experience included vacuuming munitions powder from the Radford Arsenal, as well as combustible coal dust, steel dust, and other combustible dusts. (**Exhibit 15**, Ed Thompson Dep. 13, 43, 45, July 24, 2013.) On the basis of the recommendation, Federal-Mogul contacted LCM around November 9, 2010 about inspecting and possibly cleaning their ducts. (**Ex. 12**, ¶¶ 6–7; **Ex. 15**, 47).

**Lead-up to the Inspection of the Blacksburg Plant**

LCM’s representatives visited the Federal-Mogul plant on or around November 10, 2010, for a walkthrough inspection of the factory. (**Ex. 15**; **Exhibit 16**, Danny Collins Dep. 31–35, July 24, 2013). Present at that meeting for LCM were Ed Thompson and Danny Collins. Ed Thompson was the Senior Project Manager, which meant he coordinated the project from LCM’s end, submitted proposals, chose particular method(s) of remediation and the equipment used, with input from the job supervisor. (**Ex. 15**, 26–30). Danny Collins was to serve as the job supervisor, which

meant he would direct the LCM remediation crew and serve as direct contact with the Federal-Mogul client while the LCM crew was onsite for any work performed. (**Ex. 16**, 14–17). During the November walkthrough inspection, Peter Thompson informed LCM repeatedly that the material in question was highly combustible. (**Ex. 12**, ¶ 8.). For his part, David Garard specifically mentioned the 2009 explosion in Italy to the LCM representative as the reason for the inspection. (**Exhibit 17**, David Garard Aff. ¶ 8). The LCM employee indicated that LCM was prepared to handle the job for Federal-Mogul; on the following day, LCM submitted a formal proposal for the inspection of the ducts only. (**Exhibit 18**, Ed Thompson Dep. Ex. 52, LCM Proposal).

Among other things, the November 11, 2010 proposal states that all LCM “[p]ersonnel are certified in 40-hr. HAZWOPER and Confined Space Entry and Rescue.” *Id.* This was meant to show to Federal-Mogul that LCM properly trained and certified its technicians. (**Ex. 15**, 55).

In order to provide a reasonable estimate of how much the cleaning of the ducts would cost (**Exhibit 19**, Ed Thompson Dep. Exhibit 53), LCM submitted another representative proposal for a duct cleaning on November 15, 2010. (**Exhibit 20**, Ed Thompson Dep. Exhibit 54).

Much like the November 11 proposal, the November 15 representative proposal states that LCM “[p]ersonnel are experienced in proper inspection techniques and safety procedures. They are trained and certified in 40-hr. HAZWOPER and Confined Space Entry and Rescue.” *Id.*

For various unrelated reasons, the inspection of the overhead ducts was delayed until December 30th, 2010. (**Exhibit 21**.) The inspection was scheduled for a two-day period during which the production lines for aluminum bonding would be shut down due to the holiday. *Id.*

By December 30, 2010, roughly 45 days had passed since LCM was informed of the material’s composition and the combustible qualities of aluminum. Neither Ed Thompson, Danny Collins nor anyone else at LCM Corporation did anything throughout that time period to determine the chemical or combustible qualities of aluminum dust. For his part, Thompson never informed

any one at LCM about the fact that aluminum was the potential material in the ducts that might require cleaning (**Ex. 15**, 80–81).

**Plaintiffs' Training and Certifications, & Previous Experience with Combustible Dust**

As indicated in the proposals submitted by LCM Corporation, all three plaintiffs had taken initial training courses and then subsequent annual refreshers to be certified under the relevant Code of Federal Regulations, 29 C.F.R. § 1910.120, and OSHA for the specialization of Hazardous Materials Technician. In addition, the Plaintiffs maintained certifications in the following areas involving hazardous materials remediation: Hazard Communications, Lock Out Tag Out, Confined Spaces, Bloodborne Pathogens, throughout their employment with LCM. Refresher courses ranged from 2–8 hours per year depending on the subject. Combustible materials would have been included in some of those courses. (**Ex. 15**, 28–36.) Additionally, at various times the Plaintiffs received training targeted to specific jobs or potential opportunities, such as responding to oil spills, train derailments, closing out a landfill or working with anthrax. Both Hodges and Spangler had job supervisor experience and training (OSHA Compliance Training for Hazardous Waste Operations, Management & Supervisory Training, and Incident Manager and Supervisor courses). Hodges had worked as an LCM Corporation job supervisor on various projects in the five years preceding the incident. (**Exhibit 22**, Jeff Hodges Dep. 12–13, May 23, 2013.) Spangler did supervisory work at times as well. (**Exhibit 23**, John Spangler Dep., 16, May 24, 2013.)

In addition to the training provided by LCM, the Plaintiffs had previous experience in performing vacuuming jobs in industrial ducts. Many of these jobs involved combustible dusts. Hodges had vacuumed out coal dust at Archer Creek Foundry in Lynchburg and Radford Army Ammunitions Arsenal using the same vacuum truck (or one like it), and had also operated the truck before (**Ex. 22**, 47; **Ex. 23**, 15.) He had cleaned out a baghouse at least once previously (**Ex. 22**, 78–79.) Spangler had operated the truck on previous jobs (**Ex. 23**, 14–15.) Bonds had been on



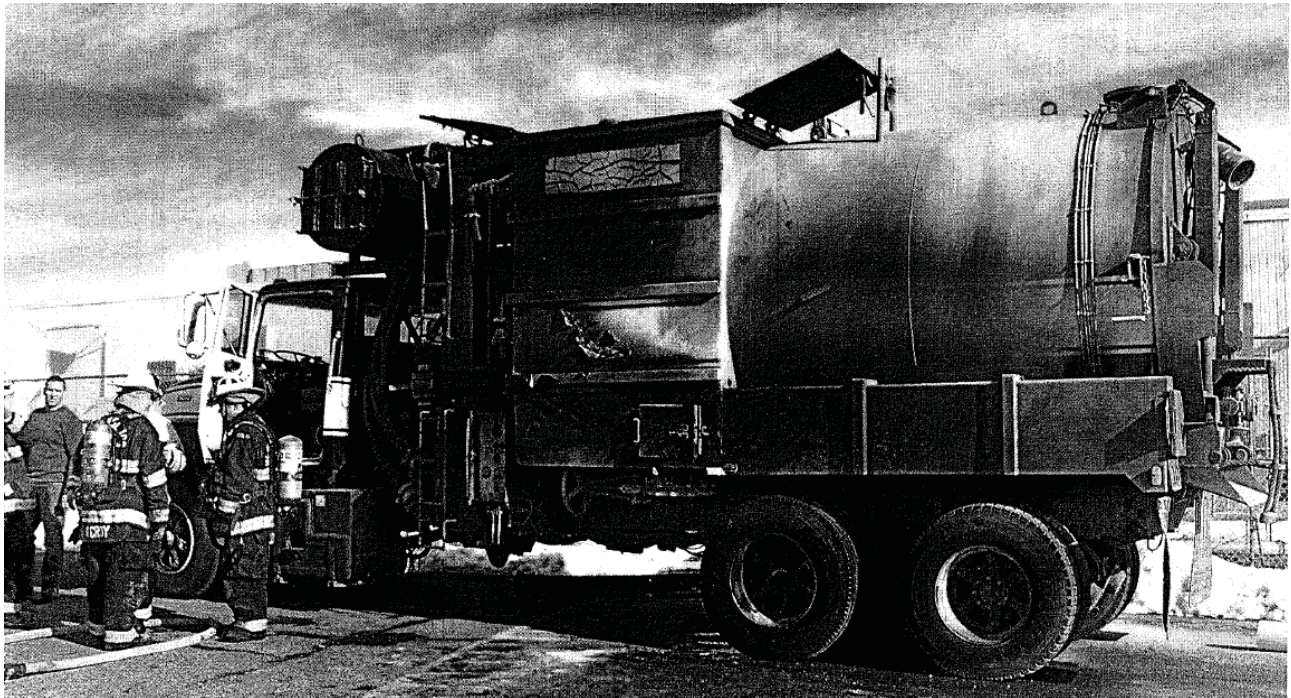
vacuuming jobs before — cleaning up materials such as dirt and nitrous cotton at the Radford Arsenal, and coal dust (**Exhibit 24**, Tommy Bonds Dep. 45–47, May 23, 2013.)

### **December 30, 2010 – Inspection Day**

On December 30th, the LCM team arrived at the Blacksburg factory and inspected a number of overhead ducts. (**Ex. 22**, 44; **Ex. 16**, 35–38; **Ex. 24**, 39–41.) The LCM team consisted of the job supervisor Danny Collins and two of the three plaintiffs—Tommy Bonds and Jeff Hodges. John Spangler was not involved in the inspection. (**Ex. 23**, 18). The LCM team used a scissor lift to reach the overhead ducts. (**Ex. 24**, 82). Bonds and Hodges went up on the scissor lift and did the actual inspection. (*Id.*) They used flashlights and removed a section of each duct line to inspect. All ducts were clean, save one, which had a buildup of about three to five inches of powdery dust along the length of the duct. (**Ex. 24**, 91–92; **Ex. 22**, 86–87). Because the inspection finished on the first of the two scheduled days, the decision was made that the LCM remediation crew would return back the next day to clean the single duct, as the East Bonding Line would be shut down that day as well. (**Ex. 15**, 87–89). At some point that evening, Spangler was called and asked to run the vacuum truck for the December 31 cleaning. Spangler specifically recalls Hodges telling him the Federal-Mogul job would not take more than four hours. (**Ex. 23**, 70-72).

### **Duct Cleaning and Explosion**

Somewhere around 7:00 a.m. on December 31st, the plaintiffs and Danny Collins arrived at the Blacksburg plant. (**Ex. 24**, 119.) They set up their equipment and prepared to go to work. Their cleaning equipment started with an industrial vacuum truck.



(**Exhibit 25**, vacuum truck photo from LCM Corporation) (cropped). The vacuum truck the Plaintiffs used (pictured above) is at least 19 years old and made by Guzzler Manufacturing Inc., an Alabama company, out of a Ford commercial truck chassis. (**Exhibit 26**, Lawrence Logan Dep. 86–87, Oct. 18, 2013.) The equipment included a discharge hopper, drum, aluminum pipe, various pieces of flex hose duct-taped together, a lift and the PVC extension they obtained from Federal-Mogul. (**Ex. 22**, 53; **Ex. 24**, . 42). Their personal protective equipment (PPE) consisted of Tyvek suits, gloves, steel-toed boots, safety glasses, ear plugs and half-face respirators. Hodges and Bonds thought they might have been wearing hard hats, but Collins and Spangler disagreed. (**Ex. 22**, 38–39; **Ex. 24**, 61; **Ex. 16**, 43–44; **Ex. 23**, 19–22.)

To reiterate: LCM had been informed on or around November 10, 2010: (1) that the material was aluminum; (2) that the material was highly combustible; and (3) that the material had resulted in the Cuorgné, Italy explosion.

Despite the month and a half between LCM receiving that information and the actual inspection, LCM did nothing different to prepare its remediation crew for a job that would involve vacuuming aluminum dust. Prior to the morning of December 31, none of the Plaintiffs even knew

what the material was. (**Ex. 24**, 84; **Ex. 22**, 48; **Ex. 23**, 18–19). None of the Plaintiffs knew that aluminum was combustible. (**Ex. 24**, 84; **Ex. 22**, 48, 86–87). LCM’s senior project manager, who had been informed of the issues and risks involving aluminum dust, chose to equip the LCM employees with Tyvek overalls<sup>4</sup>, respirators, safety glasses and gloves. (**Ex. 15**, 115–116.) LCM could have required them to use much more protective flame retardant coveralls, which LCM had available. (*Id.*, 123–125.) It was the responsibility of the senior project manager and the job supervisor to know everything they could about the job, to choose proper equipment, and to communicate any concomitant risks with their employees (**Ex. 26**, 19–28.) Ed Thompson himself agreed at deposition that it was his job to determine what equipment to use, including personal equipment. (**Ex. 15**, 115–117).

LCM employees were aware from prior experience that the vacuum truck would emit static electricity such that it would shock the operators who held the hose while in operation at worksites. Tommy Bonds described feeling static electricity while performing the vacuuming job at Federal-Mogul, and also stated that it was typical to feel such a charge when vacuuming up metal dusts. (**Exhibit 27 – FILED UNDER SEAL**, Doug Coordes Dep., 17, Nov. 26, 2013; **Ex. 24**, 54–56).

On at least one previous job, Bonds had witnessed flames coming off the end of the vacuum hose during the vacuuming process. (**Ex. 27**, 17). In his deposition testimony, Hodges described experiencing static “bites” while using the vacuum truck (**Ex. 22**, 58). If the bites became hard enough, the technician would request that the truck operator turn the truck RPMs down to see if it would lessen the impact. (**Ex. 24**, 54–55). Hodges testified that static electricity was “not uncommon” in the jobs they did and they basically just had to deal with it because nothing seemed to work to reduce it. (**Ex. 22**, 50–51) Spangler had felt static shocks on his bare skin and through gloves on previous jobs and said that while vacuuming dry material, the static would “eat you up pretty good.” (**Ex. 23**, 90–91.) Collins also experienced static shocks, which did not hurt, but could

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<sup>4</sup> Tyvek overalls are flammable.

be felt. In some instances, technicians would request that the RPMs on the truck be turned down. Collins had been on both sides — the one experiencing the shocks and the one turning down the RPMs (**Ex. 16**, 59–60.)

Despite all the issues that had occurred with the vacuum truck, neither Ed Thompson nor anyone else at LCM instructed the employees to ground it or any part of the patchwork extension used as a hose on December 31, 2010. (**Ex. 15**, 105–106; **Ex. 26**, 19–24.)

Upon arriving at the Blacksburg factory, the LCM remediation crew set up the truck and ran the pipe into the building. They then suited up, and the two vacuum technicians (Bonds and Hodges) went up on the lift. They cleaned one section of duct, removed it and put it on the ground, and then continued vacuuming towards the building (**Ex. 24**, 55–58.) Upon completion of that side, they turned around to deal with the other side (**Ex. 24**, 58; **Ex. 22**, 38–39).

At some point, the LCM team ran out of hose length. Danny Collins asked Peter Thompson for a PVC extension. When Thompson came back with it, Collins gave a two thumbs-up approval and accepted the piece. (**Ex. 12**, ¶ 10). Once the LCM employees put on the new piece, they started up the vacuum truck again and began vacuuming.

As had happened to LCM employees on previous jobs, Hodges personally saw sparks coming off the end of the vacuum apparatus. (**Ex. 27**, 15). Hodges yelled down to Spangler to turn down the suction on the vacuum truck, in order to reduce the static charges. (**Ex. 22**, 51–52). Spangler turned and started walking towards a door leading outside to where the vacuum truck was parked. (**Ex. 23**, 95–96).

Spangler had just reached the door when a massive explosion occurred (**Ex. 23**, 95.) Flames from the duct spewed out onto Hodges and Bonds, and Spangler was injured by falling debris. The external baghouse exploded. FM personnel scrambled to react to this disaster and help the Plaintiffs, and Bonds and Hodges were taken by helicopter to Wake Forest University's Burn Unit in North Carolina. They were severely injured. While no video captured the explosion itself,

indoor surveillance video footage was preserved from a camera facing a vestibule near where the Plaintiffs were vacuuming. (The video is referenced as **Exhibit 28**, and will be hand-delivered to the Clerk's Office).

All three Plaintiffs remained in the employment of LCM Corporation throughout their convalescence, and all three plaintiffs returned to work for LCM after their rehabilitation. All three plaintiffs are still employed by LCM.

On January 4, 2011, FM received a litigation hold letter from LCM Corporation's legal counsel, attached as **Exhibit 29**. On or about January 5, 2011, counsel for plaintiffs contacted Patrick J. McGinley, a fire cause and origin expert. (**Exhibit 30**, Patrick McGinley Dep., 23, Nov. 12, 2013.)

The Virginia OSHA investigation arm conducted an investigation of the accident. The OSHA investigator interviewed the plaintiffs, learned of the sparks and flames, and conducted his other investigation protocol. The OSHA investigator waited to conduct his interviews of Hodges and Bonds until they were out of the Wake Forest Burn Unit and back at LCM Corporation in Roanoke, Virginia. (**Ex. 27**, 13.) He interviewed them in February, 2011. *Id.* On February 25, 2011, VOSH issued a "serious" citation against LCM Corporation due to its failure to properly ground its equipment. (Dkt. 69-2.) That citation has been disputed by LCM Corporation and is still pending. OSHA did not issue any citation at all against Federal-Mogul. (Dkt. 69-3.) All three Plaintiffs came back to work for LCM Corporation in 2011. (**Ex. 22**, 109; **Ex. 23**, 80; **Ex. 24**, 77–78.)

On August 6, 2012, Plaintiffs filed this lawsuit. In their Amended Complaint, Plaintiffs allege the explosion at the Blacksburg factory originated in the external baghouse, not the ducts where the Plaintiffs were vacuuming using ungrounded equipment. (Dkt. 18, Am. Complaint at ¶ 39.) Plaintiffs allege the explosion was caused by a spontaneous combustion (or "exothermic reaction") that occurred in the external baghouse due to chemical interaction between aluminum



dust and condensation. Plaintiffs have retained two cause and origin experts. The only specific reasons stated for the causation and origin opinions are (1) Hodges' testimony; and (2) the video. Hodges' testimony regarding the fireball is the lynchpin of the Plaintiffs' case. In addition to Federal-Mogul, the Plaintiffs have sued the maker of the baghouse (Dustex Corporation), the maker of the damper (Kirk & Blum), and the manufacturer's representative (Carrington Industries).

## LAW AND DISCUSSION

### I. STANDARD OF REVIEW

The availability of summary judgment under Federal Rule of Civil Procedure 56 "is properly regarded not as a disfavored procedural shortcut, but rather as an integral part of the Federal Rules, which are designed 'to secure the just, speedy and inexpensive determination of every action.'" *Celotex Corp. v. Catrett*, 477 U.S. 317, 327 (1986) (internal citations omitted). The rule must be construed with regard not only for the rights of plaintiffs, "but also for the rights of persons opposing such claims and defenses to demonstrate in the manner provided by the Rule, prior to trial, that the claims and defenses have no factual basis." *Id.* As such, summary judgment is mandated if undisputed facts prove any of Federal-Mogul's defenses, or make it impossible for a reasonable jury to find the Plaintiffs proved any essential element of their case. *Celotex Corp. v. Catrett*, 477 U.S. 317 (1986); *Iota Xi Chapter of Sigma Chi Fraternity v. George Mason Univ.*, 993 F.2d 386 (4th Cir. 1993).

"The court shall grant summary judgment if the movant shows there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. Proc. 56(a). The moving party bears the initial burden of establishing that there is no genuine issue of material fact in dispute and that it is entitled to judgment as a matter of law. *Celotex*, 477 U.S. at 323. However, the moving party does not have the burden of producing evidence; it may permissibly demonstrate the absence of evidence. *Cray Commc'ns. v. Novatel Computer Sys., Inc.*, 33 F.3d 390, 393 (4th Cir. 1994).

In a diversity case, whether a fact is “material” is determined by looking to the elements of the various claims and defenses under state substantive law. *Anderson v. Liberty Lobby*, 477 U.S. 242, 248 (1986). Disputes over facts which are not material — *i.e.*, those facts that don’t impact the claims or affect defenses established to those claims — do not matter. *Id.*

The nonmoving party “cannot create a genuine issue of material fact through mere speculation or the building of one inference upon another,” *Beale v. Hardy*, 769 F.2d 213, 214 (4th Cir. 1985), and a mere scintilla of evidence is insufficient to defeat a motion for summary judgment. *Anderson*, 477 U.S. at 252. The Fourth Circuit makes it clear that a District Court has the “affirmative obligation . . . to prevent factually unsupported claims and defenses from proceeding to trial.” *Felry v. Graves-Humphreys Co.*, 818 F.2d 1126, 1128 (4th Cir. 1987). Evidence brought “in opposition to a properly submitted motion for summary judgment must be ‘significantly probative and if the evidence is merely colorable, or is not significantly probative, summary judgment may be granted.’” *Fletcher v. Pizza Hut of Am., Inc.*, 2008 U.S. Dist. LEXIS 98980 (E.D. Va. Dec. 8, 2008) (quoting *Anderson*, 477 U.S. at 249 and citing *Holland v. Wash. Homes Inc.*, 487 F.3d 208, 213 (4th Cir. 2007)). This case is ripe for summary judgment on the issues and arguments presented below.

## **II. PLAINTIFFS HAVE FAILED TO SHOW CAUSATION, AND THEREFORE ALL THEIR CLAIMS AGAINST FEDERAL-MOGUL FAIL**

### **A. Standard for Establishing Causation**

Under Virginia law, which controls in this diversity action, Plaintiffs may sue a manufacturer or seller of a defective product under breach of implied warranty of merchantability or negligence theory. *See Bly v. Otis Elevator Co.*, 713 F.2d 1040, 1042 (4th Cir. 1983). Under either theory, Plaintiffs must establish “(1) that the goods were unreasonably dangerous either for the use to which they would ordinarily be put or for some other reasonably foreseeable purpose, and (2) that the unreasonably dangerous condition existed when the goods left the defendant's hands.” *Logan v. Montgomery Ward & Co.*, 216 Va. 425, 219 S.E.2d 685, 687 (1975).

“A product is unreasonably dangerous if it is defective in assembly or manufacture, unreasonably dangerous in design, or unaccompanied by adequate warnings concerning its hazardous properties.” *Morgen Indus. v. Vaughan*, 252 Va. 60, 471 S.E.2d 489, 492 (Va. 1996). Although the duties under negligence and implied warranty of merchantability theories vary slightly, under both theories, Plaintiffs must prove that any breach of duty by the manufacturer or seller was the proximate cause of the Plaintiffs’ injuries. *See Butler v. Navistar Int’l Transp. Corp.*, 809 F. Supp. 1202, 1207 (W.D. Va. 1991).

Here, Plaintiffs have alleged that the product in question — the dust collection system — was unreasonably dangerous because it improperly collected dust into the baghouse. (Am. Compl. ¶ 48(a)). Plaintiffs claim Federal-Mogul and the other Defendants acted negligently in the design of the collection system. Federal-Mogul freely acknowledges that not all the dust that was being sucked into the overhead duct was making its way to the baghouse. Federal-Mogul does not dispute the fact that the baghouse was not working properly—in fact, that is the express reason why Federal-Mogul asked LCM Corporation onto its property to inspect and clean its ducts. Plaintiffs also appear to be operating on a negligent maintenance theory against Federal-Mogul (Am. Compl. ¶ 48(c)).

Regardless of the particular negligence theory espoused by the Plaintiffs, the Plaintiffs have failed to establish proximate cause. Proximate cause is defined as ““that act or omission which, in natural and continuous sequence, unbroken by an efficient intervening cause, produces the event, and without which that event would not have occurred.”” *Moyers ex rel. Moyers v. Corometrics Med. Sys.*, 2000 U.S. App. LEXIS 6177, 16-17 (4th Cir. Apr. 4, 2000) (quoting *Banks v. City of Richmond*, 232 Va. 130, 348 S.E.2d 280, 282 (1986)). Plaintiffs’ proximate cause evidence must be enough to take “the case out of the realm of speculation and conjecture and into the realm of legitimate inference” or the Court must grant summary judgment against the Plaintiffs. *Phillips v. Southeast 4-H Educ. Ctr.*, 257 Va. 209, 510 S.E.2d 458, 460 (1999); *see also Holmes v. Wing*



*Enters.*, 2009 U.S. Dist. LEXIS 53108 (E.D. Va. 2009) (granting *Daubert* and summary judgment motions, and noting “[a]s explained below, however, [the plaintiff] would not be able to survive the summary judgment stage even if the expert testimony was admissible.”)

In order to establish causation, the Plaintiffs must show that Federal-Mogul’s and the other defendants’ actions in designing a faulty aluminum dust collection system and/or negligently maintaining that system was the cause that produced this catastrophic explosion, without any efficient intervening cause. They cannot meet that burden, because LCM Corporation’s actions are the efficient intervening and superseding cause in this case.

### **B. Intervening and Superseding Cause**

The rule in Virginia is that an entirely independent, intervening wrongful act breaks the chain of causation and becomes the sole proximate cause of the accident, thus superseding any prior negligence of a defendant. *Atkinson v. Scheer*, 256 Va. 448, 455, 508 S.E.2d 68, 72 (1998); *Cooper v. Ingersoll Rand Co.*, 628 F. Supp. 1488, 1493-1494 (W.D. Va. 1986) (citing *Roanoke Ry. & Elec. Co. v. Whitner*, 173 Va. 253, 3 S.E.2d 169 (1939)). That intervening act “must be a negligent act, or omission, which constitutes a new effective cause and operates independently of any other act, making it and only it the proximate cause of the injury.” *Maroulis v. Elliott*, 207 Va. 503, 510–511, 151 S.E.2d 339, 345 (1966) (internal quotation omitted).

Considerations for the Court in intervening and superseding cause include: “(1) whether the harm caused was different in kind from that which would have followed from defendant's negligence; (2) whether the operation or the consequences of the intervening cause appear after the event to be extraordinary rather than normal in view of the circumstances existing at the time of its operation; (3) whether the intervening force acts independently of the situation or is a normal part of the situation; and (4) whether the intervening cause is a third party’s action or omission.” *Cooper*, 628 F.Supp. at 1494 (citing *Rawl v. United States*, 778 F.2d 1009, (4th Cir. 1985)).

In *Cooper*, the Court dealt with a factual scenario strikingly similar to this case. There, the defendants had manufactured a large piece of mining equipment called a Lee Norse 245 Continuous Miner (Miner). The Miner had been sold, rebuilt and resold and eventually was bought by a mining operation in Buchanan County known as C.C.&P. Coal Company. C.C.&P. eventually recognized that a problem existed with the Miner, and used its own electricians to repair it. On the fifth day of repairs, the electrician crew arrived at the mine and went to work. They inadvertently failed to connect the main circuit breaker operating lever on the Miner with the main circuit breaker handle before conducting their repairs, the Miner started up in mid-repair, and it killed the plaintiff's husband before the crew could shut down the machine. The plaintiff sued the manufacturers of the Miner, claiming negligence in designing, manufacturing, servicing and rebuilding the Miner. Federal investigators inspected the accident under Mining Safety and Health Act regulations.

The defendants moved for summary judgment based on a theory of intervening and superseding negligence. The Court noted it was undisputed that the mining electrician crew was negligent in its performance of the repairs. In so finding, the Court reasoned that the crew committed violations of the MSHA regulations by failing to properly de-energize electrical equipment before conducting repairs. *Id.* at 1489. The Court found the crew's behavior was undisputedly negligent, that the negligent behavior had caused the accident, and that any negligence on the part of the manufacturers was merely a circumstance of the accident, and at best a remote cause. The Court granted the motion for summary judgment, noting that in Virginia:

where a second tort-feasor becomes aware or by the exercise of ordinary care should be aware, of the existence of a potential danger created by the negligence of an original tort-feasor, and thereafter by an independent act of negligence brings about an accident, the *condition created by the first tort-feasor becomes merely a circumstance of the accident, but is not a proximate cause thereof.* The original negligence of the first tort-feasor is legally insulated by the intervening independent negligence of the second tort-feasor, and the latter becomes the sole proximate cause of the accident.

Id. at 1493 (emphasis in original) (quoting *Maroulis v. Elliott*, 207 Va. 503, 510, 151 S.E.2d 339, 344 (1966)).

**i. LCM Corporation Acted Negligently as a Matter of Law.**

The facts at issue here are even more favorable for FM's summary judgment than was the case in *Cooper*. It is undisputed that LCM Corporation acted negligently in its failure to take any precautions or protect its workers. First, while Occupational Safety and Health regulations are not evidence of negligence per se in Virginia, their violation can be introduced as evidence of the standard of care. See, e.g., *Marslender v. Virginia Elec. & Power Co.*, 37 Va. Cir. 199, 201 (Norfolk 1995) ("Therefore, the Court will allow Defendant to introduce OSHA regulations as evidence of the duty of care that Plaintiff was required to exercise for his own safety.") LCM Corporation's actions and omissions go far beyond the inadvertent failure to lock out a machine as in *Cooper*. LCM held itself out as an expert in hazardous materials remediation, knew that aluminum dust was highly combustible, knew about the Cuorgné explosion, and knew that aluminum dust was the subject material in FM's ducts, and yet failed to take any precautions whatsoever to avoid the very risk LCM was warned of. Moreover, LCM had this knowledge as of November 10, 2010—45 days before LCM sent the Plaintiffs to inspect the ducts. LCM's actions not only caused the accident, but LCM intensified the Plaintiffs' injuries by giving them flammable outfits that stuck to the Plaintiffs' skins while burning. Under *Cooper*, LCM was unquestionably negligent.

**ii. LCM's Negligence Caused the Explosion.**

Moreover, the overwhelming weight of evidence suggests that LCM's negligence caused the accident. As described in the facts section above, there is no question that the only possible scenario where all the elements for the ignition of a dust cloud were present is this: the Plaintiffs' ungrounded vacuum hose, connected to an ungrounded vacuum truck and capped with an ungrounded PVC pipe, sparked the aluminum dust in the ducts and caused the accident.

The simple facts show that no explosion had occurred in the previous seven to eight years of the East Bonding Line's operation. Nothing had ever occurred because no source of ignition had previously been introduced into the overhead ducts. On December 31, 2010, that changed.

When LCM Corporation sent its workers into Federal-Mogul with an ungrounded vacuum truck setup that was literally patched together with duct tape, it introduced a highly efficient ignition source into the overhead ducts. Tommy Bonds, who had worked with this same truck on other jobs sucking up less explosive dusts, had literally seen flames shooting off the end of the vacuum on at least one previous occasion. On December 31, 2010, Jeffrey Hodges saw static sparks coming off of the PVC extension just before the explosion took place. On December 31, 2010, they added an even more efficient means of producing static electricity — a nonconductive PVC extension. Even without the PVC extension, LCM Corporation workers were so accustomed to receiving static shocks off the end of the vacuum hose through their gloves that they had a makeshift procedure whereby they would call to the truck operator to turn down the vacuum RPMs to reduce the static. Immediately before the accident occurred, Hodges asked John Spangler to turn down the RPMs to reduce the static.

LCM Corporation's jackleg vacuum truck, with its highly efficient electrostatic ignition source, is the cause of the explosion. The collection system had never blown up previously because, prior to December 31, 2010, no person had ever stood in the aluminum dust duct with the equivalent of a giant Piezo lighter.

**iii. LCM's Negligence was not reasonably foreseeable by Federal-Mogul.**

LCM Corporation's overall negligence and disregard for its employees' safety could not have been foreseen by Federal-Mogul. LCM's proposal indicated that all its workers were certified by the State of Virginia in hazardous materials removal. (**Ex. 20**, LCM Proposal.) Federal-Mogul had received a recommendation stating that LCM had done good work vacuuming combustible dusts for another local factory. LCM Corporation holds itself out as a hazardous materials

remediation company with expertise in combustible materials. According to Ed Thompson, LCM Corporation is a national leader in its field. (Ex. 15, Ed Thompson Dep. 30–45). Its website advertises, among other things, explosive wastes removal. (Ex. 27, Doug Coordes Deposition Transcript, pages 13, 15, 17; **Exhibit 31**, Ed Thompson Deposition Exhibit 50, LCM Website). LCM Corporation (and at least two of the Plaintiffs) had done extensive work vacuuming explosive “nitro-cotton” and nitrocellulose from the Radford Army Ammunitions Arsenal. (Ex. 15, Ed Thompson Dep. 41–42).

If it was reasonable foreseeable to FM that LCM Corporation would carry out its job in such a negligent manner, then the Code of Federal Regulations hazardous materials certification program under 40 C.F.R. § 261 and 29 C.F.R. 1910.120 (OSHA) is meaningless. Any company that hires a hazardous materials remediation company would be obliged to go beyond these certifications, perhaps inspecting the hazardous material company’s equipment and personnel. FM is not the insurer of the federal OSHA hazardous materials removal certification program.

LCM Corporation was fully aware of the specific hazard that occurred here (Ex. 15, 102–104), and its job was to deal with that specific hazard by remediating the combustible dust in a safe and effective manner. It had the non-delegable duty to properly train and equip its employees. Federal-Mogul relied on LCM Corporation because LCM had the experience and the expertise, or so it represented to FM. The cause of this accident was the use of ungrounded equipment by LCM and its employees, the Plaintiffs, and could not have been foreseen by FM.

#### **iv. The *Rawl* Factors.**

Applying the considerations articulated in *Rawl* and *Cooper*, it is clear that this case involves an intervening and superseding cause. All four *Rawl* factors come down in FM’s favor on this issue. First, the harm caused is different than would have been caused had this case involved FM’s negligence. For one, this accident did not take place during normal operation and the baghouse was shut down, so it is difficult to conceive a situation where Plaintiffs would be exposed

to the dangers of combustible dust and static electricity. It was LCM Corporation's choice as to how the dust was vacuumed. When asked about the decision to use an ungrounded vacuum, LCM's senior project manager said this:

Well, we could have used any number of means. But given that same situation, we would probably have done it exactly the same way. *We have done that ever since 1989*, but the OSHA is just now starting to take note of these dust explosions.

(Ex. 15, 106) (emphasis added). Federal-Mogul left that decision to LCM, which was purportedly the expert.

Second, whether “the operation or the consequences of the intervening cause appear after the event to be extraordinary” is essentially a foreseeability question, which is addressed above. FM could not have foreseen that LCM Corporation and its workers would flout their training and certifications under OSHA and behave in such a negligent manner.

Third, “the intervening force” here is LCM Corporation's decision to use ungrounded equipment. LCM Corporation thus acted independently of the situation that was present at FM before LCM Corporation arrived. It was not “a normal part of the situation.”

Fourth, the intervening and superseding cause is clearly “a third party's act or omission.” LCM Corporation held itself out as the expert, and it certainly is an independent actor from FM. **v.**

**v. Plaintiffs Cannot Prove Causation.**

Even assuming Plaintiffs' experts are allowed to testify and speculate as to the cause of this accident, the Court should still grant summary judgment. The only scintilla of evidence in this entire case that the Plaintiffs can rely on for their claim that the explosion began in the baghouse is Jeffrey Hodges' unreliable, incorrect and physically impossible split-second impression that he saw a fireball past the back-draft damper. Moreover, even if the Court passes over all the internal contradictions in Hodges' testimony and holds it to be true, that testimony does not even prove the Plaintiffs' causation case. If the ignition began somewhere between Hodges and the end of the duct, two fireballs would have gone in the two opposite direction—one toward Hodges, one toward

the baghouse. The entire duct would have been lit up, and Hodges might have seen the fireball racing toward the baghouse. At very best, his testimony is a mere scintilla of evidence in the Plaintiffs' favor—which is not enough to defeat summary judgment. *Anderson v. Liberty Lobby*, 477 U.S. 242, 252 (1986).

### **III. HODGES' AND BONDS' CONTRIBUTORY NEGLIGENCE BARS THEIR RECOVERY.**

There can be no doubt that Hodges and Bonds were contributorily negligent and that their negligence was another proximate cause of their injuries. Under Virginia law, “contributory negligence is a complete bar to an action based on negligence.” *Jones v. Meat Packers Equip. Co.*, 723 F.2d 370, 373 (4th Cir. 1983); *Smith v. Virginia Elec. and Power Co.*, 204 Va. 128, 133, 129 S.E.2d 655, 659 (1963). If reasonable minds cannot differ as to the conclusion that the plaintiff is contributorily negligent, contributory negligence is established as a matter of law. *Kelly v. Virginia Elec. and Power Co.*, 238 Va. 32, 39, 381 S.E.2d 219, 222 (1989).

The test for the existence of contributory negligence asks “whether a plaintiff failed to act as a reasonable person would have acted for his own safety under the circumstances.” *Artrip v. E.E. Berry Equip. Co.*, 240 Va. 354, 358, 397 S.E.2d 821, 824 (1990). Here, Hodges & Bonds were contributorily negligent as a matter of law because they placed themselves in a position of danger and failed to act as a reasonable person would have acted for his own safety under the circumstances.

Both Hodges and Bonds had worked around industrial equipment extensively, and both had experience vacuuming other combustible dusts. They had felt static shocks coursing from the vacuum hose in the past. Bonds had seen flames shooting off the end of the vacuum hose on at least one prior occasion. Hodges had seen sparks on previous jobs, and saw them on the day of the accident. Yet according to both of these men they had no idea what the material was they were vacuuming. Furthermore, while Spangler (who had not been present for the inspection the previous day) had the presence of mind to at least ask what Collins what it was they were vacuuming,

Hodges and Bonds did not ever ask anyone. Apparently, they were willing to go into an industrial plant with a vacuum hose that they knew gave off electric sparks without even knowing what the substance was.

While that lack of knowledge certainly imputes negligence against LCM for not informing them of the dangers it knew were present, it baffles the mind how these two men could act with such willful blindness as to what hazardous material they were vacuuming. For the reasons stated here and above, both Hodges and Bonds committed contributory negligence as a matter of law.

#### **IV. CONCLUSION**

WHEREFORE, Federal-Mogul Corporation respectfully requests that the Court grant its motion for summary judgment, dismiss Federal-Mogul from this case, and that it provide such further relief as the Court deems proper.

Respectfully submitted,

FEDERAL-MOGUL CORPORATION

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**CERTIFICATE OF SERVICE**

I hereby certify that on this 11th day of December, 2013, a true and accurate copy of the foregoing was electronically filed through ECF, which automatically sends a copy to all counsel of record:

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